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No.	Date	Modified Content	Page	Edition	Prepared/modified by	Checked by
1	2016.05.20	Draft		A/0	Jeffery	Helge
2	2017.05.20	Update the characteristic		A/1	Jeffery	WenqiangLuo
3	2018.08.01	Update cURus certification		A/2	J.Q.	Jun Li
4	2019.04.01	Update IT curve	6	A/3	Xiang Xiong	Jun Li
5	2020.07.12	Update temperature derating curve		A/4	YaLan Wang	Fei Gao
6	2021.07.16	Update IT curve	6	A/5	Wenshan Chen	Fei Gao
7	2021.09.13	Update figure	5	B/0	Wenshan Chen	Fei Gao
8	2021.12.07	Update print	8	B/1	Wenshan Chen	Fei Gao
9	2021.12.23	Update IT curves and data	8	B/2	Hongkun Huang	Fei Gao
10	2022.03.07	Modified braid tolerance	9	B/3	Hongkun Huang	Fei Gao
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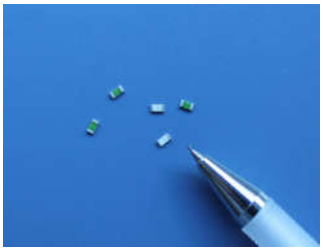
1. SCOPE AND DESCRIPTION



Following electronic product specifications apply to chip fuses of the 127 series. The 127 series is a fast-acting type chip fuse for over-current protection.

With their small size and layout, 127 chip fuses are ideal for industrial products. They are widely used in cellphones, DVD players, battery packs, hard disk drives and digital cameras.

2. GENERAL INFORMATION

General Description

The 127 chip fuses stand out due to their ultra-small size and excellent electrical performance, reliability and quality. The solder-free design provides outstanding on-off and temperature cycling characteristics during operation and also makes our chip fuses more heat and shock tolerant than typical subminiature fuses.

Detailed Features

- Rapid interruption of excessive current
- Compatible with reflow and wave soldering
- AEC-Q200 Automotive Grade Certified
- Excellent environmental integrity
- One time positive disconnect
- Lead-free, Halogen-free, RoHS compliant
- Designed to UL 248-14

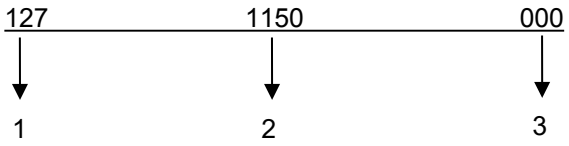
3. AGENCY APPROVALS

Agency	Agency File Number	Ampere/ Voltage Range
c UL us	E300003	32V/48V DC:8A~20A 63VDC:6A;7A 72VDC:3.5A~7A 125VDC:250mA~3A 125VAC:250mA~1.5A

4. PART NUMBERING SYSTEM

4.1 Part Number

Example: 1271150000



1 .Product Series 127
2 .Ampere Rating ..... 1.5A (see table 4.3 below)
3 .Supplementary Code ..... See table 4.2 below

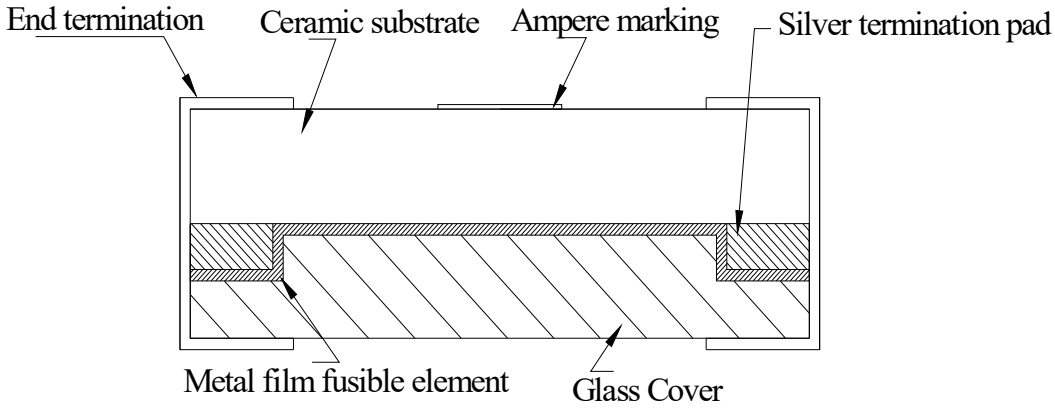
4.2 Supplementary Code Table

CODE	DESIGNATION
000	Tape-and-reel

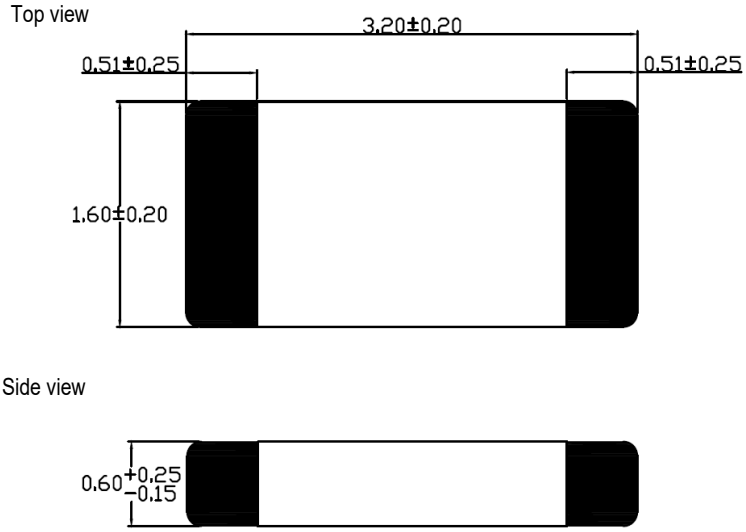
4.3. Ampere / Voltage Rating Table

AMP CODE	AMPERE RATING	VOLTAGE RATING
0250	250mA	125V AC;125V DC
0375	375mA	125V AC;125V DC
0500	500mA	125V AC;125V DC
0750	750mA	125V AC;125V DC
1100	1.00A	125V AC;125V DC
1125	1.25A	125V AC;125V DC
1150	1.50A	125V AC;125V DC
1200	2.00A	125V DC
1250	2.50A	125V DC
1300	3.00A	125V DC
1350	3.50A	72V DC
1400	4.00A	72V DC
1500	5.00A	72V DC
1600	6.00A	63V/72V DC
1700	7.00A	63V/72V DC
1800	8.00A	32V/48V DC
2100	10.00A	32V/48V DC
2120	12.00A	32V/48V DC
2150	15.00A	32V/48V DC
2200	20.00A	32V/48V DC

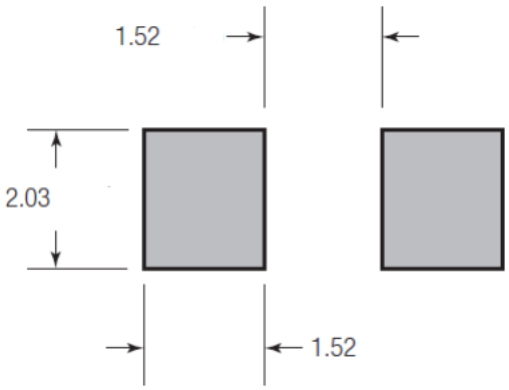
5. MECHANICAL SPECIFICATIONS



Dimensions (unit: mm)



Recommended land pattern



Operating Temperature:

-55°C to +150°C

Storage Conditions:

+10℃ to +60℃

Relative humidity: ≤ 75% yearly average

without dew, maximum 30 days at 95%

Vibration Resistance:

24 cycles at 15 min. each (60068-6)

10-60Hz at 0.75mm amplitude

60-2000Hz at 10g acceleration

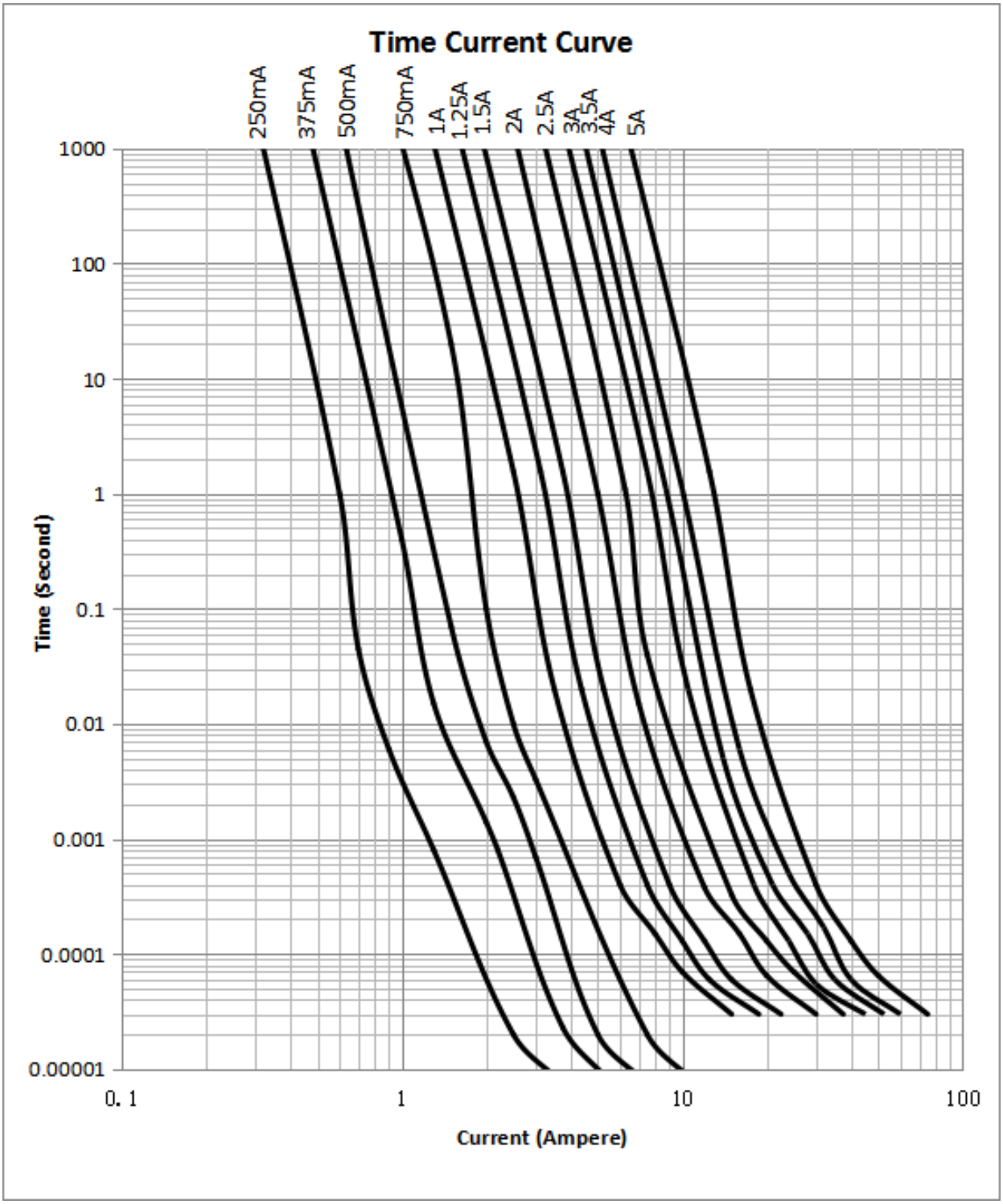
6. ELECTRICAL SPECIFICATIONS

Time vs Current Characteristics Table

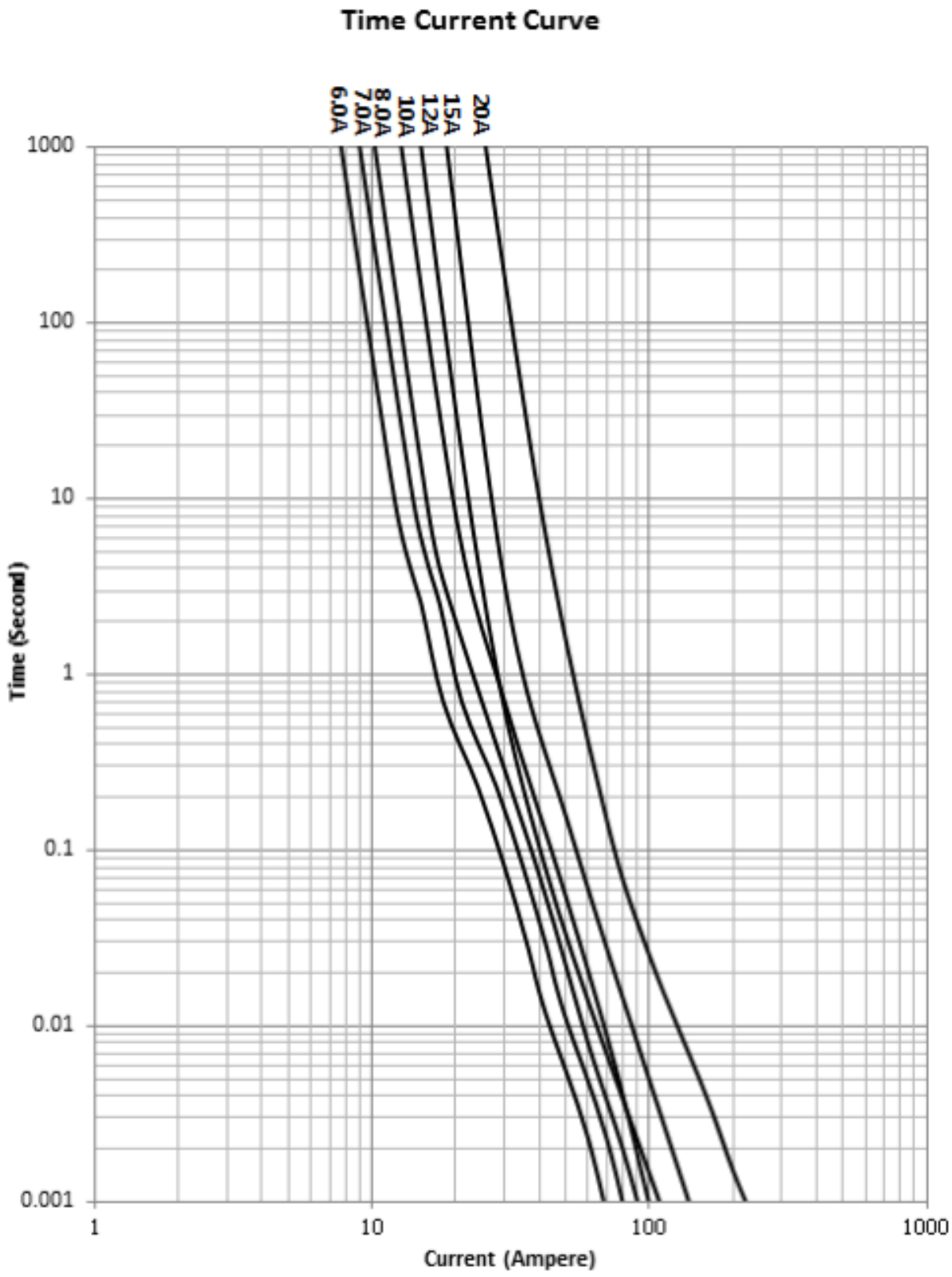
(measured with constant current power supply)

Time vs Current Characteristics:UL248-14			
Rated Current	100%	250%	350%
250mA-5A	≥4H	≤5s	-
6A-20A	≥4H		≤5s

Average Time Current (I-T) Curves



Average Time Current (I-T) Curves



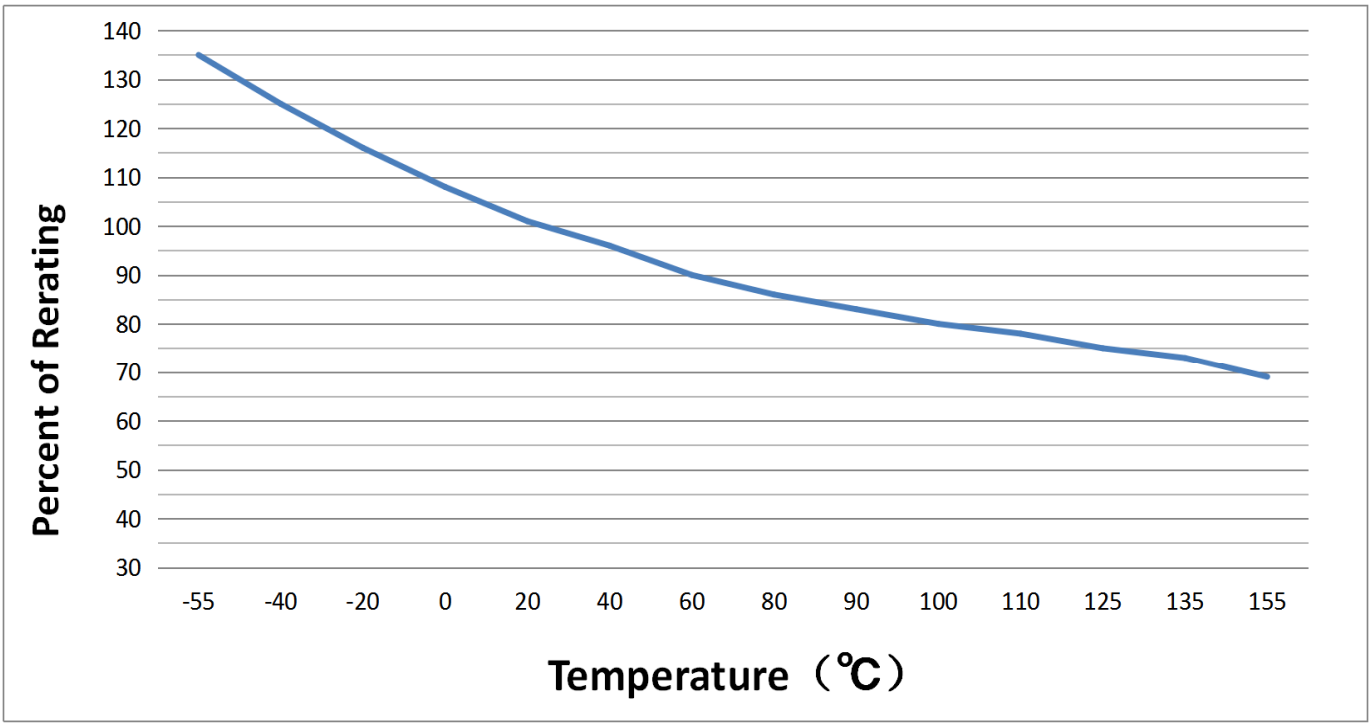
Electrical Characteristics at 25℃								
Amp Code	Rated Current	Rated Voltage	Typical Voltage Drop (mV)	Breaking Capacity	Nominal Melting I²t(A²sec)	Typical Cold Resistance (mΩ)	Alpha Marking	Approvals cURus
0250	250mA	125V AC 125V DC	1407	50A@125V AC 50A@125V DC	0.00012	3608	.25	●
0375	375mA		718		0.0003	1882	E	●
0500	500mA		650		0.0005	1028	0.5	●
0750	750mA		1000		0.0012	850	.75	●
1100	1.00A		300		0.0075	240	H	●
1125	1.25A		290		0.009	175		●
1150	1.50A		250		0.013	125	1.5	●
1200	2.00A	125V DC	200	50A@125V DC	0.04	80	N	●
1250	2.50A		140		0.045	38	2.5	●
1300	3.00A		130		0.065	32	P	●
1350	3.50A	72V DC	120	50A@72V DC	0.08	25	3.5	●
1400	4.00A		110		0.11	20	S	●
1500	5.00A		100		0.185	13	T	●
1600	6.00A	72V DC 63V DC	140	50A@72V DC 50A@63V DC	8	15.5	F	●
1700	7.00A		130		10	11.5	7	●
1800	8.00A	48V DC 32V DC	123	150A @ 48V DC 150A @ 32V DC	12	7.6	V	●
2100	10.00A		110		18	5.5	U	●
2120	12.00A		85		11.5	5	12	●
2150	15.00A		78		16.5	3.4	15	●
2200	20.00A		80		40	2.2	Q	●

Note: (1) DC interrupting rating (measured at rated voltage, time constant of less than 50 microseconds, battery source)
(2) DC cold resistance are measured at <10% of rated current in ambient temperature of 25℃
(3) Typical pre-arcing I2t are measured at 10In current

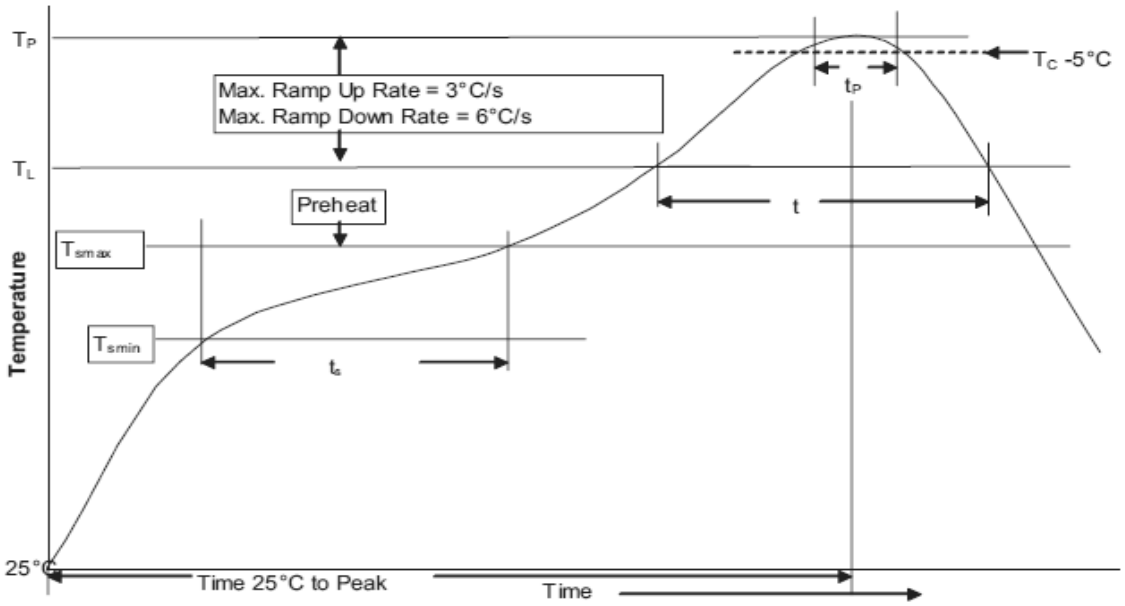
Temperature Derating Curve

（1）Normal ambient temperature: 23+/-3℃

（2）Operating temperature: -55℃ ~ +150℃, with proper correction factor applied



7.SOLDERING PARAMETERS



1.Infrared Reflow:
Temperature:260℃
Time:30sec Max.

2.Wave Soldering
Reservoir Temperature:260℃
Time in Reservoir:10sec. Max.

Profile Feature		Lead (Pb)free solder
Average Ramp-UP Rate（Tsmax to Tp)		3℃/s Max.
Preheat and soak	Temperature min.(Tsmin)	150℃
	Temperature max.(Tsmax)	200℃
	Time (Tsmin to Tsmax)(ts)	60~120s
Liquidous temperature(TL) Time at liquidous(tL)		217℃ 60~150s
Peak package body temperature(Tp)		260℃
Time (tP) within 5℃ of the specified classification temperature (Tc)		30s
Average ramp-down rate (Tp to Tsmax)		6℃/s Max.
Time (25℃ to Peak Temperature)		8 Minutes Max.

8.ORDERING INFORMATION

The following information are necessary in order to place your order with us correctly:

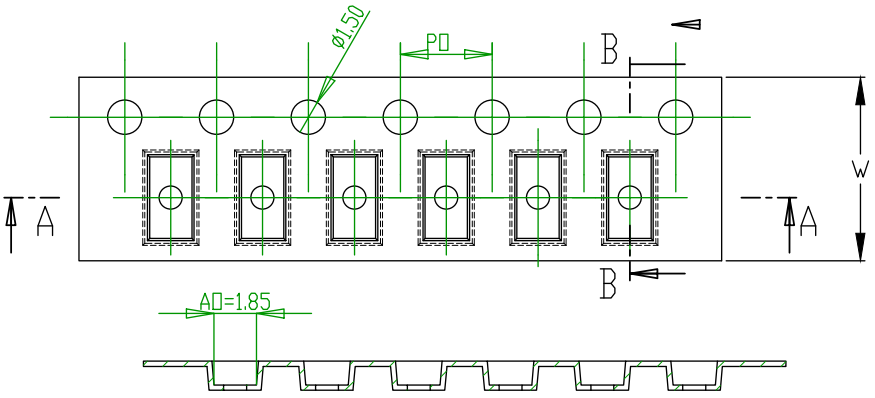
Series	Amp Code	Supplementary Code	Qty
127			

9.PACKING INFORMATION

Taping details

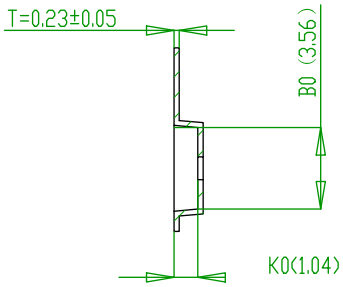
Packing

Unit:mm



剖面 A-A

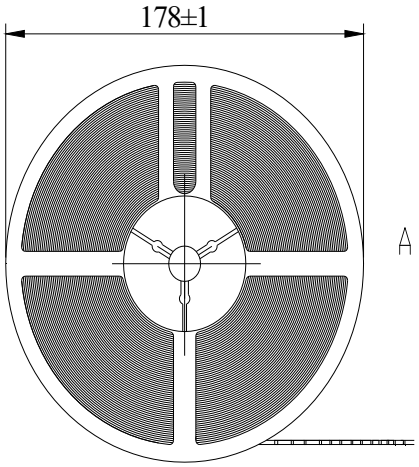
比例 5：1



剖面 B-B

比例 5：1

*A0	*B0	*K0	P0	*T	D0	W
1.85±0.10	3.56±0.10	1.04±0.10	4.00±0.05	0.23±0.05	1.50+0.1-0	8.00±0.2



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